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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 06/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/780,678

Applicant(s)

BRAUN ET AL.

Examin r

Brian R. Gordon

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-- Th MAILING DATE f this communicati n appears on th cover sheet with the correspondence address --
Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2001 .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,9,11,14-16,18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 3,4,7,8,10,12,13,17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____ .

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on April 1, 1999. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

Oath/Declaration

2. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Germany on April 1, 1999. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

Drawings

3. The drawings filed on February 12, 2001 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: On page 8 of the specification reference numerals 19-21 have been used to designate both "recesses" and "light".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2, 5-6, 9, 11, 18, 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Schurbrock US 5,620,661.

Schurbrock discloses a pipette system with a syringe comprising a syringe flange and a syringe plunger (**piston-cylinder unit**), and with a pipette (**apparatus**) which in a pipette body comprises an accommodation for the syringe flange and in an accommodation body comprises a plunger accommodation for the syringe plunger, further comprising fastening mechanism for releasably fixing the syringe flange and the syringe plunger to their accommodations, and plunger adjusting device for displacing the accommodation body within the pipette body, the syringe comprising a data carrier with an information about the syringe and/or the condition thereof, and the pipette comprising a sensing device (**detecting device**) for the information on the data carrier (**code marking**), the syringe flange and the syringe plunger being axially movable into their positions of attachment in the pipette through axial openings of their accommodations, the data carrier being placed into a sensing position with respect to the sensing device and the syringe flange comprising a ring having at least one axially directed sensed area as a data carrier in an axial position.

According to an inventive pipette system, the syringe comprises a data carrier informing about the syringe and/or the condition thereof. There may be concerned any specific dates of the syringe, such as the syringe volume, or any other constant data **(type of piston-cylinder unit)**. The information may also relate to any other data of the syringe, such as its condition of cleanness or any filling substance. Furthermore, the pipette comprises a sensing means which reads the information on the data carrier. The pipette thus is in the position to identify the syringe associated thereto and/or to determine the condition thereof. Consequently, the inventive pipette system can automatically determine or adjust the respective pipetting parameters. Any time-consuming activities of the user are not necessary therefor any more. Especially, an evaluation means **(evaluating unit)** may be provided which, in consideration of a set value of the plunger adjusting means, converts the information read by the sensing means into the value of the actually adjusted dosage quantity. This enables the operator to use the syringe type according to the practical requirements and to adjust the dosage quantity without any time-consuming conversion work.

According to the physical provision of the information on the data carrier, the sensing means can sense mechanically, electrically, optically, magnetically, inductively, capacitively and/or acoustically. Mechanical, electrical and/or **optical modes** of operation are acceptable to the evaluation means or display means, too. Thereat a miniaturized electric circuit or a LCD display may be concerned.

Preferably, the syringe flange of the syringe serves as a data carrier. Any large-volume syringes may be of such a big size that there is required an adapter comprising

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a syringe flange for fixing them to a pipette. In that case the data carrier can be provided on the syringe flange of the adapter.

The information can be contained in the arrangement and axial position of sensed areas (**reference points**). The sensed areas are arranged within a ring (e.g. as a crenellated ring) to allow the syringe to be inserted into the repeating pipette in different rotary positions.

The sensing means may be position sensors for detecting the position of sensed areas (**detecting the presence of the piston-cylinder unit**). The position sensors may comprise sensing pins which by means of spring means are pressed axially towards the sensed areas of the syringe. Thereat the sensing pins preferably can be pressed axially beyond the flange abutment for the syringe flange. Moreover, the position sensors may be pressure sensor which in a certain position are pressed and switched (**detection of presence dependent upon relative motion between the plunger and detection device**).

In radial breakthroughs of the pipette body 24 gripping levers 29 (**thrust element**) for the syringe flange 7 are arranged so as to face each other diametrically. In addition, in radial breakthroughs 30 of the accommodation body 27 gripping levers 31 for the plunger collar 6 are arranged in positions facing each other diametrically. The syringe gripping levers 29 are provided with cams 32 inside which can be pivoted against the outside of the collar gripping lever 31.

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurbrock US 5,620,661.

As recited above, Schurbrock discloses that according to the physical provision of the information on the data carrier, the sensing means can sense mechanically,

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electrically, optically, magnetically, inductively, capacitively and/or acoustically.

Mechanical, electrical and/or **optical modes** of operation are acceptable to the evaluation means or display means, too. Thereat a miniaturized electric circuit or a LCD display may be concerned.

It would have been obvious to one of ordinary skill in the art to include an optical device of a photoelectric cell detector and a light emitter, for Schurbrock discloses that an optical type of position sensor may be encompassed within the device. It is also well known in the art of pipetting methods for laser or light emitting devices to be included in the pipettes for determining the presence of components, presence and level of liquid, positions relative to targets, and etc.

Allowable Subject Matter

11. Claims 3-4, 7-8, 10, 12-13, 17, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach nor fairly suggest a method in which the reference point is detected by placing a thrust element on a side of the apparatus onto the piston rod head, detection of the code markings is carried out at two or more spaced measurement points on the side of the apparatus.

The prior art of record does not teach nor fairly suggest a device comprising a measurement device for determining the relative distance covered between the piston rod head and the detection device, a thrust element resiliently mounted in a guiding

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sleeve of the drive device, a thrust element that had a reference mark which forms the reference point, nor a second drive device provided for moving the piston rod head.

Conclusion


13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shvets et al., Kohrmann et al., Rainin et al. (,841; ,467; and ,832), Conely et al., Belgardt et al., and Franke et al. disclose pipetting systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is (703) 305-0399. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 703-308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

brg
June 5, 2003


Jill Warden
Supervisory Patent Examiner
Technology Center 1700